



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,358	11/26/2003	Heiko Glienicke	1020/013PUS1	6146
60601 7590 08/14/2008 Muncy, Geissler, Olds & Lowe, PLLC P.O. BOX 1364 FAIRFAX, VA 22038-1364				
EXAMINER				
CHOI, JACOB Y				
ART UNIT		PAPER NUMBER		
2885				
MAIL DATE		DELIVERY MODE		
08/14/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/721,358

Applicant(s)

GLUENICKE ET AL.

Examiner

JACOB Y. CHOI

Art Unit

2885

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 20 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Applicant Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-640)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Reopening of Prosecution after Appeal Brief

In view of the Pre-Brief Conference Request filed on April 4, 2008, PROSECUTION IS HEREBY REOPENED. A new ground of rejection(s) is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/Jong-Suk (James) Lee/
Supervisory Patent Examiner, Art Unit 2885.

Specification

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

Claims **1, 11, 15, and 16** are objected to because of the following informalities: It has been held that the recitation that an element is "*adapted to*", "*design to*", and "*able to*" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138. Appropriate correction is required.

Note: The method of forming the device is not germane to the issue of patentability of the device itself. Therefore, this limitation has not been given patentable weight (e.g., "... *the light rotor are formed*" & "... *light corona is formed*").

Election/Restrictions

As previously stated, newly submitted claims **20-21** directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: because of a different field of search (e.g., class/subclass) where it is necessary to search for one of the inventions in a manner that is not likely to result in finding art pertinent to the other inventions.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for

Art Unit: 2885

prosecution on the merits. Accordingly, claims 20-21 withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Note: Claims in a pending application should be given their broadest reasonable interpretation. *In re Pearson*, 181 USPQ 641 (CCPA1974).

Things clearly shown in reference patent drawing qualify as prior art features, even though unexplained by the specification. *In re Mraz*, 173 USPQ 25 (CCPA 1972).

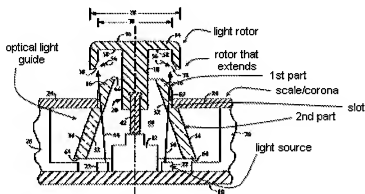
In order to be given patentable weight, a functional recitation must be supported by recitation in the claim of sufficient structure to warrant the presence of the functional language. *In re Fuller*, 1929 C.D. 172; 388 O.G. 279.

Claims **1, 4-9, and 17** are rejected under 35 U.S.C. 102(e) as being anticipated by Zysnarski et al. (USPN 6,590,174).

Regarding claim 1, Zysnarski et al. discloses a combined scale and corona illumination (e.g., Figure 1), wherein the scale is a part of a panel (e.g., 24) that is *designed to work together with the control element (e.g., 14), an optical light guide (e.g., 16; column 3, lines 1-20) formed from a single piece that includes two parts (e.g., "upper portion & lower portion"; Figure 1), the two parts being partially separated by an annular*

Art Unit: 2885

slot (e.g., 68), such that parts of the panel engage or project into the slot, a light rotor (e.g., column 5, lines 5-7; "... *interior surface 58 of the knob 14 may reflect light*") that extends (e.g., 14) towards (e.g., 38) the optical light guide (e.g., 16) to a height necessary for light transport (e.g., column 5, lines 5-7; "... *interior surface 58 of the knob 14 may reflect light, which ends up being transmitted through the gap 58*") and a light source (e.g., 22) located below the light rotor (e.g., 14).



Regarding claim 4, Zysnarski et al. discloses the corona is illuminated in the night design as a luminous ring around the rotary knob and is not illuminated in the daylight design and thus very difficult or impossible to detect (e.g., Figure 5; column 6, lines 40-60).

Regarding claim 5, Zysnarski et al. discloses the brightness of the scale is corona is regulated by light scattering wall thickness in the symbol area (e.g., column 5, lines 1-35).

Regarding claim 6, Zysnarski et al. discloses the brightness of the scale and corona is regulated by an *appropriate* wall thickness in the symbol area (e.g., column 5, lines 1-35).

Regarding claim 7, Zysnarski et al. discloses the brightness of the scale and corona is regulated by at least one light-diverting bevel on an underside of the optical light guide on a circumferential side (e.g., Figures 1 & 4)

Regarding claim 8, Zysnarski et al. discloses the optical light guide is fixed relative to the control element (e.g., Figure 1).

Regarding claim 9, Zysnarski et al. discloses the optical light guide is adjusted in functional combination with the light rotor (e.g., 14).

Regarding claim 17, Zysnarski et al. discloses the light guide provides light to illuminate the corona (e.g., Figures 4 & 5).

Claims **1-3, 6-9, 11-14, and 17-19** are rejected under 35 U.S.C. 102(b) as being anticipated by Hasegawa et al. (USPN 5,093,764).

Regarding claim 1, Hasegawa et al. discloses a combined scale and corona illumination, wherein the scale (e.g., 23a; Figure 1) is a part of a panel (23 and 7) that is designed to work together with the control element (e.g., column 2, lines 35-55; "*... an outer knob 2 and an inner knob 3 are coaxially provided on a panel surface 23 with a graduation 23 thereon*") an optical light guide (e.g., 6) that includes two parts (e.g., 6d and 6c), which are partially separated by an annular slot (e.g., Figure 2), such that parts of the panel engage (e.g., 23 and 7) or project into the slot (7), a light rotor (e.g., 2) that extends towards the optical light guide (e.g., 6) to a height necessary for light transport (e.g., column 3, lines 40-50; "*... the panel surface light guide 6 is divided into an outer knob illuminating portion 6c as a portion internally of the shield plate 7 and a panel*

surface illuminating portion 6d externally thereof"), and a light source (e.g., 24) located below (e.g., Figure 2) the light rotor (e.g., 2).

Regarding claim 2, Hasegawa et al. discloses the scale around the rotary knob of the control element are symbols (e.g., Figure 1), which are backlight in the night design (e.g., columns 1-2, lines 5-15; "... *use is expected at night or at dark places ... the panel surface 23 is lit to effect illumination so that the apparatus can be used at night ... illumination for the index can be attained, and visibility at night is enhanced, thus solving the aforementioned problem of the prior art.*") and are easily recognizable in the daylight design by establishing appropriate contrast with their surroundings (e.g., columns 1-2, lines 5-15; "... *the inner knob light guide or the knob housing is formed from a colored transparent member*").

Regarding claim 3, Hasegawa et al. discloses the symbols are produced by a laser, injection-molding, or film technique (e.g., column 3, lines 30-40; "... *in order to uniformly illuminate a graduation 23a applied to the panel surface 23 by suitable means, for example, such as a printed film*").

Regarding claim 6, Hasegawa et al. discloses the brightness of the scale and corona is regulated by an appropriate wall thickness in the symbol area (e.g., Figure 1; column 3, lines 30-40; "... *substantially closed area is provided on the panel surface 23, and the panel surface light guide 6a is provided with a through-hole 6b through which the inner knob light guide 4 extends*").

Regarding claim 7, Hasegawa et al. discloses the brightness of the scale and corona is regulated by at least one light-diverting bevel (e.g., 6a; column 3, lines 30-40) provided on an underside of the optical guide (e.g., 6) on a circumferential side.

Regarding claim 8, Hasegawa et al. discloses the optical light guide is fixed relative to the control element.

Regarding claim 9, Hasegawa et al. discloses the optical light guide is adjusted in functional combination with the light rotor (e.g., column 3, lines 30-40).

Regarding claim 11, Hasegawa et al. discloses a rotary knob (e.g., 2), a corona (e.g., 6c) *substantially* circumscribing the rotary knob (e.g., 2), the corona being *adapted* to emit light therefrom (e.g., 24), a scale (e.g., 23a; Figure 1) *substantially* circumscribing the corona and the rotary knob (e.g., 2), the scale (e.g., 23a) being *adapted* to emit light therefrom (e.g., 24; Figure 1), an optical light guide (e.g., 6) having an annular slot (e.g., Figure 3) provided therein, the annular slot being formed to receive a projection extending (e.g., Figure 3) from the scale (e.g., 23 and 7), the optical light guide (e.g., 6) directing light towards the scale and the corona (e.g., Figure 1), and a light rotor (e.g., 4) that directs light from a light (e.g., 24) source towards the optical light guide (e.g., 6).

Regarding claim 12, Hasegawa et al. discloses the scale completely circumscribes the corona and the corona completely circumscribes the rotary knob (e.g., Figure 1).

Regarding claim 13, Hasegawa et al. discloses the light rotor directs light towards the optical light guide from an outer perimeter of the light rotor (e.g., Figure 1).

Regarding claim 14, Hasegawa et al. discloses the scale includes at least one symbol formed thereon (e.g., Figure 1).

Regarding claim 17, Hasegawa et al. discloses the light guide provides light to illuminate the corona (e.g., Figure 1).

Regarding claim 18, Hasegawa et al. discloses light from the light source (e., 24) illuminates the scale and the corona via the optical light guide and the light rotor (e.g., Figure 1).

Regarding claim 19, Hasegawa et al. discloses the optical light guide provides light to both the scale and the corona (e.g., Figure 1).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims **2, 3 & 10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Zysnarski et al. (USPN 6,590,174).

Regarding claim 2, Zysnarski et al. discloses the claimed invention except for the details of the control elements being symbols.

However, Zysnarski et al. admits in "*Background*" invention that a knob has a transparent or translucent region that represents a symbol or a graphical form to provide

a recognizable indicator of the knob during conditions of low ambient light (e.g., column 1, lines 10-30 & column 4, lines 15-35).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize symbols or graphical around the knob to provide recognizable indicator for the knob (e.g., Figure 5 & Figure 3; S16) to provide visual effect during low ambient light. The modification is desirable as suggested by Zysnarski et al.

Regarding claim 3, Zysnarski et al. discloses the claimed invention, explained above. In addition, Zysnarski et al. teaches that the symbols are produced by a laser, injection-molding, or film technique (e.g., column 1, lines 10-30).

Regarding claim 10, Zysnarski et al. discloses the optical light guide and the light rotor are formed as two-portions.

Zysnarski et al. failed to disclose the optical light guide and the light rotor is formed as a single piece. However, suggest that the knob and the light diffuser may appear to be one piece to a user (e.g., column 3, lines 50-55).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to make both of the light guide (optical light guide & light rotor) into a single piece, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). The modification is desirable as suggested by Zysnarski et al.

Claims **4, 5, 15, and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa et al. (USPN 5,093,764).

Regarding claims 4, 5, 15, and 16, Hasegawa et al. discloses the corona is illuminated in the night design as a luminous ring around the rotary knob.

However, failed to specify that during day time operation, the corona and the rotary knob are not illuminated in the daylight design and thus very difficult.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to specify the on/off or dimming function of the illuminated panel system of the vehicle (e.g., column 1, lines 1-10; "... *an air conditioning apparatus and an acoustic apparatus, and more specifically, to a coaxial knob provided with an illuminating device for facilitating an operation thereof at night*""). The reference does not explicitly teach the feature of turning the illuminated panel system on/off, however in a common vehicle environment includes the feature so that the user/driver may turn off the headlight off during day-time driving. Alternatively, the user/driver may dim the interior lighting to better focus on the road. Thus, the following would save energy/battery use overall. See MPEP 2144.

Claim **10** is rejected under 35 U.S.C. 103(a) as being unpatentable over Hasegawa et al. (USPN 5,093,764) in view of Snider (USPN 6,860,224).

Regarding claim 10, Hasegawa et al. disclose the claimed invention, except for the details of the optical light guide and the light rotor are formed as a single piece.

However, Snider teaches similar indicator knob with over molded appliqué where the optical light guide and the light rotor are formed as a single piece (e.g., 22, 26).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the light guide and the light rotor to be a single piece. The following modification would have minimized number of working parts within the device. Also, the modification would further improve scale illumination (e.g., scale/corona) by minimizing the light lost, during light-rays transmitting from first to second body. It has been held that forming in one piece an article, which has formerly been formed in two pieces, and put together, involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

Response to Arguments

Applicant's arguments with respect to claims **1-19** have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Schubert et al. (USPN 6,512,189) - rotary switch

Dorrie (US 2002/0075668) – arrangement for illuminating the adjusting knob of an input unit by means of transmitted light

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACOB Y. CHOI whose telephone number is (571)272-2367. The examiner can normally be reached on Monday-Friday (10:00-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jong-Suk (James) Lee can be reached on (571) 272-7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jacob Y Choi
Examiner
Art Unit 2885

JC

/Jacob Y Choi/
Examiner, Art Unit 2885